

CLAIMS

1. A computer system comprising: a memory (10), whereon data are spread; a program execution unit (20), applying processes, based on a predetermined program, to the data spread on the memory; a file storage unit (50), storing files formed of predetermined data; a storage processing unit (30), storing the data, spread on the memory, into the file storage unit as a file having an instructed, predetermined filename; a filename presentation unit (60), presenting, to a user, filenames corresponding to the respective files stored in the file storage unit; an spread processing unit (40), spreading, on the memory, data inside a file corresponding to a specific filename selected by the user from among the filenames presented by the filename presentation unit; and a user interface unit (70), serving an interface function with respect to the user;
- 15 the computer system further comprising:
 - a user recognition unit (90), recognizing a user who is logged in at the present time;
 - a storage control unit (35), which, when the storage processing unit (30) is storing a file, inputs a filename-for-user from the user who is logged in, executes a filename conversion process of converting the filename-for-user to a filename-for-storage based on a predetermined algorithm, and provides to the storage processing unit an instruction to perform storage using the filename-for-storage;
 - 25 a correspondence information storage unit (80), which, when the filename conversion process is carried out by the storage control unit (35), stores information, indicating a correspondence between the filename-for-user and the filename-for-storage, as filename correspondence information for the user who is logged-in;
 - 30 a presentation control unit (65), which, when the filename presentation unit (60) is performing a presentation of filenames, references the filename correspondence information for the logged-in user from inside the correspondence information storage unit (80) and provides an instruction to present the filename-for-user in place of the filename-for-storage based on the filename correspondence information referenced; and
 - 35 an spread control unit (45), which, when the spread processing unit

- (40) spreads data, inputs an instruction of selection of a filename-for-user from the logged-in user, references the filename correspondence information for the logged-in user from inside the correspondence information storage unit (80), executes a filename conversion process of converting the selected
5 filename-for-user to a filename-for-storage based on the correspondence information referenced, and provides, to the spread processing unit, an instruction to spread data in a file with the filename-for-storage resulting from the conversion.
- 10 2. The computer system according to Claim 1, wherein:
the storage control unit (35) executes the filename conversion process by generating a filename-for-storage that contains random codes based on an algorithm using random numbers.
- 15 3. The computer system according to Claim 1 or 2, wherein:
the correspondence information storage unit (80) stores a correspondence table, indicating a correspondence between a filename-for-user and a filename-for-storage, as the filename correspondence information.
- 20 4. The computer system according to Claim 1, wherein:
the storage control unit (35) executes the filename conversion process from a filename-for-user to a filename-for-storage by generating a filename-for-storage based on an algorithm for reversible conversion.
- 25 5. The computer system according to Claim 4, wherein:
the correspondence information storage unit (80) stores information, indicating the reversible conversion algorithm used in the filename conversion process, as the filename correspondence information.
- 30 6. The computer system according to any one of Claims 1 through 5, wherein:
the storage control unit (35) executes the filename conversion process on the entirety of a filename, including an extension portion.
- 35 7. The computer system according to any one of Claims 1 through 6,

wherein:

the storage control unit (35) executes a conversion process of converting not only a filename but also contents of timestamps or other attribute information that are stored along with a file,

5 the correspondence information storage unit (80) executes a process of storing, as the filename correspondence information, not just a correspondence of filenames but also a correspondence of attribute information before and after the conversion process; and

10 the spread control unit (45) executes a process of restoring converted attribute information based on the correspondence of attribute information before and after the conversion process.

8. The computer system according to any of Claims 1 through 7, wherein:

15 the correspondence information storage unit (80) executes a process of encrypting and then storing the filename correspondence information and executes, upon receiving a reference of the stored filename correspondence information, a process of decrypting and then presenting the information to be referenced.

20 9. The computer system according to any one of Claims 1 through 8, wherein:

25 the correspondence information storage unit (80) is arranged from a portable information storage medium that can be freely attached to and detached from a main body of the computer system.

10. The computer system according to any one of Claims 1 through 9, wherein:

functions of the storage control unit (35), the spread control unit (45),
30 and the presentation control unit (65) are realized by incorporating a dedicated application program in a computer and the storage control unit (35), the spread control unit (45), and the presentation control unit (65) are made to operate only when said program is started up.

35 11. The computer system according to any one of Claims 1 through 10, wherein:

- the file storage unit (50) is arranged from a plurality of data storage devices (51, 52, 53) that are configured distributedly,
- the storage processing unit (30A) is provided with a function of dividing a file to be stored into a plurality of partition files and storing the
5 respective partition files in different data storage devices (51, 52, 53),
- the spread processing unit (40A) is provided with a function of synthesizing and thereby restoring the plurality of partition files, respectively stored in different data storage devices (51, 52, 53), to an original file and then spreading the original file on the memory, and
- 10 the correspondence information storage unit (80A) is provided with a function of storing filename correspondence information indicating a correspondence of a “single filename-for-user” to a “plurality of filenames-for-storage,” used as respective filenames of the partition files.
- 15 12. A program making a computer function as the storage control unit (35), the spread control unit (45), and the presentation control unit (65) of the computer system according to any one of Claims 1 through 11 or a computer readable storage medium recording said program.
- 20 13. A file storage/read-out method that makes a computer system execute a storage process of storing data as a file with a predetermined filename into a file storage unit (50) and a readout process of reading out data in a file stored in the file storage unit,
said method making the computer system execute,
25 in the storage process:
a storing user recognition step of recognizing a user who is logged in at the present time;
a storage filename input step of inputting a filename-for-user to be assigned to a file to be stored;
- 30 a filename conversion step of converting the filename-for-user to a filename-for-storage based on a predetermined algorithm;
a correspondence information storage step of storing information, indicating a correspondence between the filename-for-user and the filename-for-storage, as filename correspondence information for a user who
35 is logged in; and
a file storage step of storing the file to be stored into the file storage

- unit under the filename-for-storage; and
in the readout process:
a reading user recognition step of recognizing a user who is logged in at the present time;
- 5 a readout filename input step of inputting a filename-for-user for specifying a file to be read out;
a filename referencing step of referencing a filename-for-storage, corresponding to the input filename-for-user, based on the filename correspondence information for a user who is logged in; and
- 10 a file readout step of reading out a file stored in the file storage unit under the filename-for-storage, obtained by the referencing, as the file to be read out.
14. The file storage/read-out method according to Claim 13, wherein:
- 15 the readout filename input step is executed by a method whereby filenames-for-user corresponding to respective files stored in the file storage unit are referenced and displayed in a list based on the filename correspondence information and a user is made to select a specific filename from among the filenames displayed in the list.

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